

PROJECT NO. G. 112.	
BY	CLASS/SUBCLASS
DRAFTSMAN	

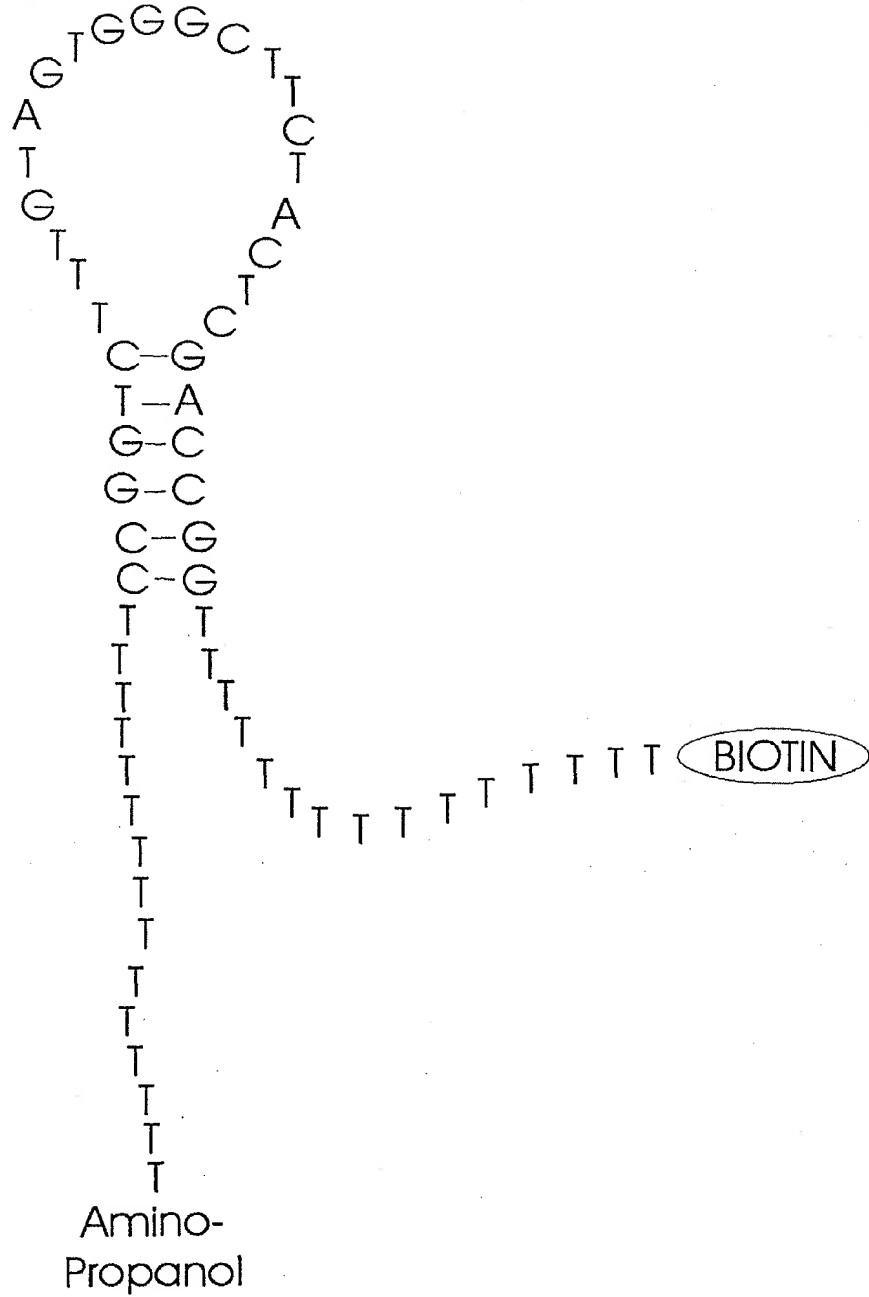


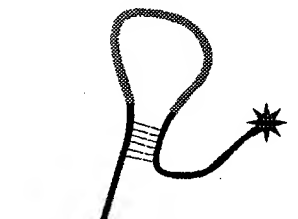
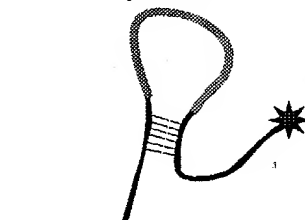
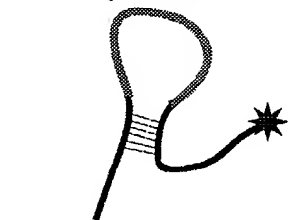
Figure 1.



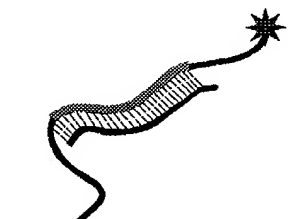
- PRL arrays are supplied with bioluminescent labels attached. The bioluminescent enzyme is shown as a star.
- Target DNA or RNA is extracted, sheared and allowed to hybridize to the array. Unhybridized target molecules are then washed away.
- A restriction enzyme is applied, cutting the probes that are not hybridized to target DNA or RNA.
- The array is incubated at a temperature high enough to dissociate the remaining stem hydrogen bonds and the unbound labels are washed away.
- When substrate is added, light is emitted only at sites where hybridization to target DNA or RNA occurred.

Sequence A

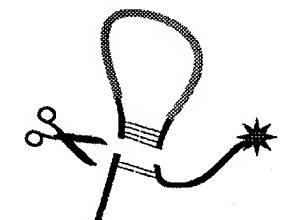
Sequence B



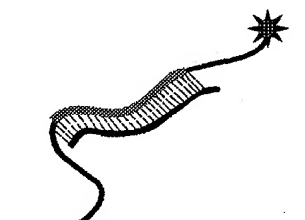
No hybridization



Hybridization



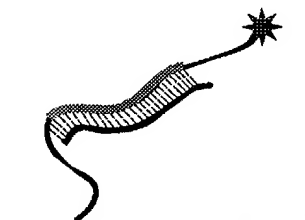
Cut



Not cut



Fragment removed

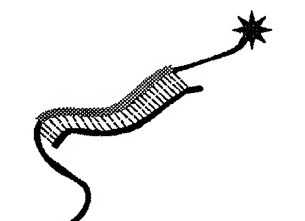


No effect



No light

Negative



Light emitted

Positive

Figure 2.